

SEQUENCE LISTING

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<120> BARLEY FOR PRODUCTION OF FLAVOR-STABLE BEVERAGE

<130> 12845.9US01

<140> New Filing

<141> 2004-03-11

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<170> PatentIn version 3.1

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Thr Thr Pro Gly Glu Phe Asp Ser Phe Gln Asp Ile Ile Asn Leu Tyr
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Glu Gly Gly Ile Lys Leu Pro Lys Val Ala Ala Leu Glu Glu Leu Arg
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Arg Thr Leu Phe Phe Leu Arg Gly Asp Gly Arg Leu Thr Pro Leu Ala
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Ile Glu Leu Ser Glu Pro Ile Ile Gln Gly Gly Leu Thr Thr Ala Lys
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Ser Lys Val Tyr Thr Pro Val Pro Ser Gly Ser Val Glu Gly Trp Val
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Trp Glu Leu Ala Lys Ala Tyr Val Ala Val Asn Asp Ser Gly Trp His
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Gln Leu Val Ser His Trp Leu Asn Thr His Ala Val Met Glu Pro Phe
 515 520 525

Val Ile Ser Thr Asn Arg His Leu Ser Val Thr His Pro Val His Lys
 530 535 540

Leu Leu Ser Pro His Tyr Arg Asp Thr Met Thr Ile Asn Ala Leu Ala
 545 550 555 560

Arg Gln Thr Leu Ile Asn Ala Gly Gly Ile Phe Glu Met Thr Val Phe
 565 570 575

Pro Gly Lys Phe Ala Leu Gly Met Ser Ala Val Val Tyr Lys Asp Trp
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Lys Phe Thr Glu Gln Gly Leu Pro Asp Asp Leu Ile Lys Arg Gly Met
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Ala Val Glu Asp Pro Ser Ser Pro Tyr Lys Val Arg Leu Leu Val Ser
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Asp Tyr Pro Tyr Ala Ala Asp Gly Leu Ala Ile Trp His Ala Ile Glu
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Gln Tyr Val Ser Glu Tyr Leu Ala Ile Tyr Tyr Pro Asn Asp Gly Val
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 35 40 45

Gly Lys Gly Val Thr Cys Gln Leu Ile Ser Ser Thr Ala Val Asp Gln
 50 55 60

Asp Asn Gly Gly Arg Gly Lys Val Gly Ala Glu Ala Glu Leu Glu Gln
 65 70 75 80

Trp Val Thr Ser Leu Pro Ser Leu Thr Thr Gly Glu Ser Lys Phe Gly
 85 90 95

Leu Thr Phe Asp Trp Glu Val Glu Lys Leu Gly Val Pro Gly Ala Ile
 100 105 110

Val Val Asn Asn Tyr His Ser Ser Glu Phe Leu Leu Lys Thr Ile Thr
 115 120 125

Leu His Asp Val Pro Gly Arg Ser Gly Asn Leu Thr Phe Val Ala Asn
 130 135 140

Ser Trp Ile Tyr Pro Ala Ala Asn Tyr Arg Tyr Ser Arg Val Phe Phe
 145 150 155 160

Ala Asn Asp Thr Tyr Leu Pro Ser Gln Met Pro Ala Ala Leu Lys Pro
 165 170 175

Tyr Arg Asp Asp Glu Leu Arg Asn Leu Arg Gly Asp Asp Gln Gln Gly
 180 185 190

Pro Tyr Gln Glu His Asp Arg Ile Tyr Arg Tyr Asp Val Tyr Asn Asp
 195 200 205

Leu Gly Glu Gly Arg Pro Ile Leu Gly Gly Asn Ser Asp His Pro Tyr
 210 215 220

Pro Arg Arg Gly Arg Thr Glu Arg Lys Pro Asn Ala Ser Asp Pro Ser
 225 230 235 240

Leu Glu Ser Arg Leu Ser Leu Leu Glu Gln Ile Tyr Val Pro Arg Asp
 245 250 255

Glu Lys Phe Gly His Leu Lys Thr Ser Asp Phe Leu Gly Tyr Ser Ile
 260 265 270

Lys Ala Ile Thr Gln Gly Ile Leu Pro Ala Val Arg Thr Tyr Val Asp
275 280 285

Thr Thr Pro Gly Glu Phe Asp Ser Phe Gln Asp Ile Ile Asn Leu Tyr
290 295 300

Glu Gly Gly Ile Lys Leu Pro Lys Val Ala Ala Leu Glu Glu Leu Arg
305 310 315 320

Lys Gln Phe Pro Leu Gln Leu Ile Lys Asp Leu Leu Pro Val Gly Gly
325 330 335

Asp Ser Leu Leu Lys Leu Pro Val Pro His Ile Ile Gln Glu Asn Lys
340 345 350

Gln Ala Trp Arg Thr Asp Glu Glu Phe Ala Arg Glu Val Leu Ala Gly
355 360 365

Val Asn Pro Val Met Ile Thr Arg Leu Thr Glu Phe Pro Pro Lys Ser
370 375 380

Ser Leu Asp Pro Ser Lys Phe Gly Asp His Thr Ser Thr Ile Thr Ala
385 390 395 400

Glu His Ile Glu Lys Asn Leu Glu Gly Leu Thr Val Gln Gln Ala Leu
405 410 415

Glu Ser Asn Arg Leu Tyr Ile Leu Asp His His Asp Arg Phe Met Pro
420 425 430

Phe Leu Ile Asp Val Asn Asn Leu Pro Gly Asn Phe Ile Tyr Ala Thr
435 440 445

Arg Thr Leu Phe Phe Leu Arg Gly Asp Gly Arg Leu Thr Pro Leu Ala
450 455 460

Ile Glu Leu Ser Glu Pro Ile Ile Gln Gly Gly Leu Thr Thr Ala Lys
465 470 475 480

Ser Lys Val Tyr Thr Pro Val Pro Ser Gly Ser Val Glu Gly Trp Val
485 490 495

Trp Glu Leu Ala Lys Ala Tyr Val Ala Val Asn Asp Ser Gly Trp His
500 505 510

Gln Leu Val Ser His Trp Leu Asn Thr His Ala Val Met Glu Pro Phe
515 520 525

Val Ile Ser Thr Asn Arg His Leu Ser Val Thr His Pro Val His Lys
530 535 540

Leu Leu Ser Pro His Tyr Arg Asp Thr Met Thr Ile Asn Ala Leu Ala
545 550 555 560

Arg Gln Thr Leu Ile Asn Ala Gly Gly Ile Phe Glu Met Thr Val Phe
565 570 575

Pro Gly Lys Phe Ala Leu Gly Met Ser Ala Val Val Tyr Lys Asp Trp
580 585 590

Lys Phe Thr Glu Gln Gly Leu Pro Asp Asp Leu Ile Lys Arg Gly Met
595 600 605

Ala Val Glu Asp Pro Ser Ser Pro Tyr Lys Val Arg Leu Leu Val Ser
610 615 620

Asp Tyr Pro Tyr Ala Ala Asp Gly Leu Ala Ile Trp His Ala Ile Glu
625 630 635 640

Gln Tyr Val Ser Glu Tyr Leu Ala Ile Tyr Tyr Pro Asn Asp Gly Val
645 650 655

Leu Gln Gly Asp Thr Glu Val Gln Ala Trp Trp Lys Glu Thr Arg Glu
660 665 670

Val Gly His Gly Asp Leu Lys Asp Ala Pro Trp Trp Pro Lys Met Gln
675 680 685

Ser Val Pro Glu Leu Ala Lys Ala Cys Thr Thr Ile Ile Trp Ile Gly
690 695 700

Ser Ala Leu His Ala Ala Val Asn Phe Gly Gln Tyr Pro Tyr Ala Gly
705 710 715 720

Phe Leu Pro Asn Arg Pro Thr Val Ser Arg Arg Arg Met Pro Glu Pro
725 730 735

Gly Thr Glu Glu Tyr Ala Glu Leu Glu Arg Asp Pro Glu Arg Ala Phe
740 745 750

Ile His Thr Ile Thr Ser Gln Ile Gln Thr Ile Ile Gly Val Ser Leu
755 760 765

Leu Glu Val Leu Ser Lys His Ser Ser Asp Glu Leu Tyr Leu Gly Gln
770 775 780

Arg Asp Thr Pro Glu Trp Thr Ser Asp Pro Lys Ala Leu Glu Val Phe
785 790 795 800

Lys Arg Phe Ser Asp Arg Leu Val Glu Ile Glu Ser Lys Val Val Gly
805 810 815

Met Asn His Asp Pro Glu Leu Lys Asn Arg Asn Gly Pro Ala Lys Phe
820 825 830

Pro Tyr Met Leu Leu Tyr Pro Asn Thr Ser Asp His Lys Gly Ala Ala
835 840 845

Ala Gly Leu Thr Ala Lys Gly Ile Pro Asn Ser Ile Ser Ile
850 855 860

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35 40 45

Gly Lys Gly Val Thr Cys Gln Leu Ile Ser Ser Thr Ala Val Asp Gln
50 55 60

Asp Asn Gly Gly Arg Gly Lys Val Gly Ala Glu Ala Glu Leu Glu Gln
65 70 75 80

Trp Val Thr Ser Leu Pro Ser Leu Thr Thr Gly Glu Ser Lys Phe Gly
85 90 95

Leu Thr Phe Asp Trp Glu Val Glu Lys Leu Gly Val Pro Gly Ala Ile
100 105 110

Val Val Asn Asn Tyr His Ser Ser Glu Phe Leu Leu Lys Thr Ile Thr
115 120 125

Leu His Asp Val Pro Gly Arg Ser Gly Asn Leu Thr Phe Val Ala Asn
130 135 140

Ser Trp Ile Tyr Pro Ala Ala Asn Tyr Arg Tyr Ser Arg Val Phe Phe
145 150 155 160

Ala Asn Asp Thr Tyr Leu Pro Ser Gln Met Pro Ala Ala Leu Lys Pro
165 170 175

Tyr Arg Asp Asp Glu Leu Arg Asn Leu Arg Gly Asp Asp Gln Gln Gly
180 185 190

Pro Tyr Gln Glu His Asp Arg Ile Tyr Arg Tyr Asp Val Tyr Asn Asp
195 200 205

Leu Gly Glu Gly Arg Pro Ile Leu Gly Gly Asn Ser Asp His Pro Tyr
210 215 220

Pro Arg Arg Gly Arg Thr Glu Arg Lys Pro Asn Ala Ser Asp Pro Ser
225 230 235 240

Leu Glu Ser Arg Leu Ser Leu Leu Glu Gln Ile Tyr Val Pro Arg Asp
245 250 255

Glu Lys Phe Gly His Leu Lys Thr Ser Asp Phe Leu Gly Tyr Ser Ile
260 265 270

Lys Ala Ile Thr Gln Gly Ile Leu Pro Ala Val Arg Thr Tyr Val Asp
275 280 285

Thr Thr Pro Gly Glu Phe Asp Ser Phe Gln Asp Ile Ile Asn Leu Tyr
290 295 300

Glu Gly Gly Ile Lys Leu Pro Lys Val Ala Ala Leu Glu Glu Leu Arg
305 310 315 320

Lys Gln Phe Pro Leu Gln Leu Ile Lys Asp Leu Leu Pro Val Gly Gly
325 330 335

Asp Ser Leu Leu Lys Leu Pro Val Pro His Ile Ile Gln Glu Asn Lys
340 345 350

Gln Ala Trp Arg Thr Asp Glu Glu Phe Ala Arg Glu Val Leu Ala Gly
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